

# MEMORANDUM



**DATE:** April 8 2014

**TO:** Michael Herring, City Administrator

**FROM:** <sup>me</sup> Mike Geisel, Director of Public Services

**RE:** CVAC Signage

As you aware, the 2014 budget provide funding for new signage at the Chesterfield Valley Athletic Complex. The Parks Division has worked to develop an attractive and effective sign concept, which is similar in concept to the signage at the entry to the Amphitheater at Central Park.

Prior to initiating our procurement process, Staff would like the Planning and Public Works Committee to review and approve the sign concept for the record. We certainly would not desire to procure a sign without Council's full consent and awareness. As proposed, this sign would be located adjacent to the privacy fence enclosure in the main parking lot. When combined with the landscape planter which has been constructed by staff, the sign and landscaping will assist in substantially obscuring the dumpster enclosure. In doing so, it will not only enhance the complex identification, but improving the aesthetics as well.

As such, I request that the materials related to the proposed signage, be reviewed at the next Planning and Public Works Committee meeting, in hopes of securing conceptual approval. If approved, Staff will proceed to procure the sign in accordance with the City's purchasing policies.

If you have any questions or require additional information, please advise.

Attachments

Cc Tom McCarthy, Parks and Recreation Director  
Aimee Nassif, Planning and Development Services Director

*ohid*  
*7/8/14*  
*4/8/14*  
*GEISEL*

→







312 in

32 in

CHESTERFIELD VALLEY



ATHLETIC COMPLEX

84 in

204 in

296 in

115 in

29 in

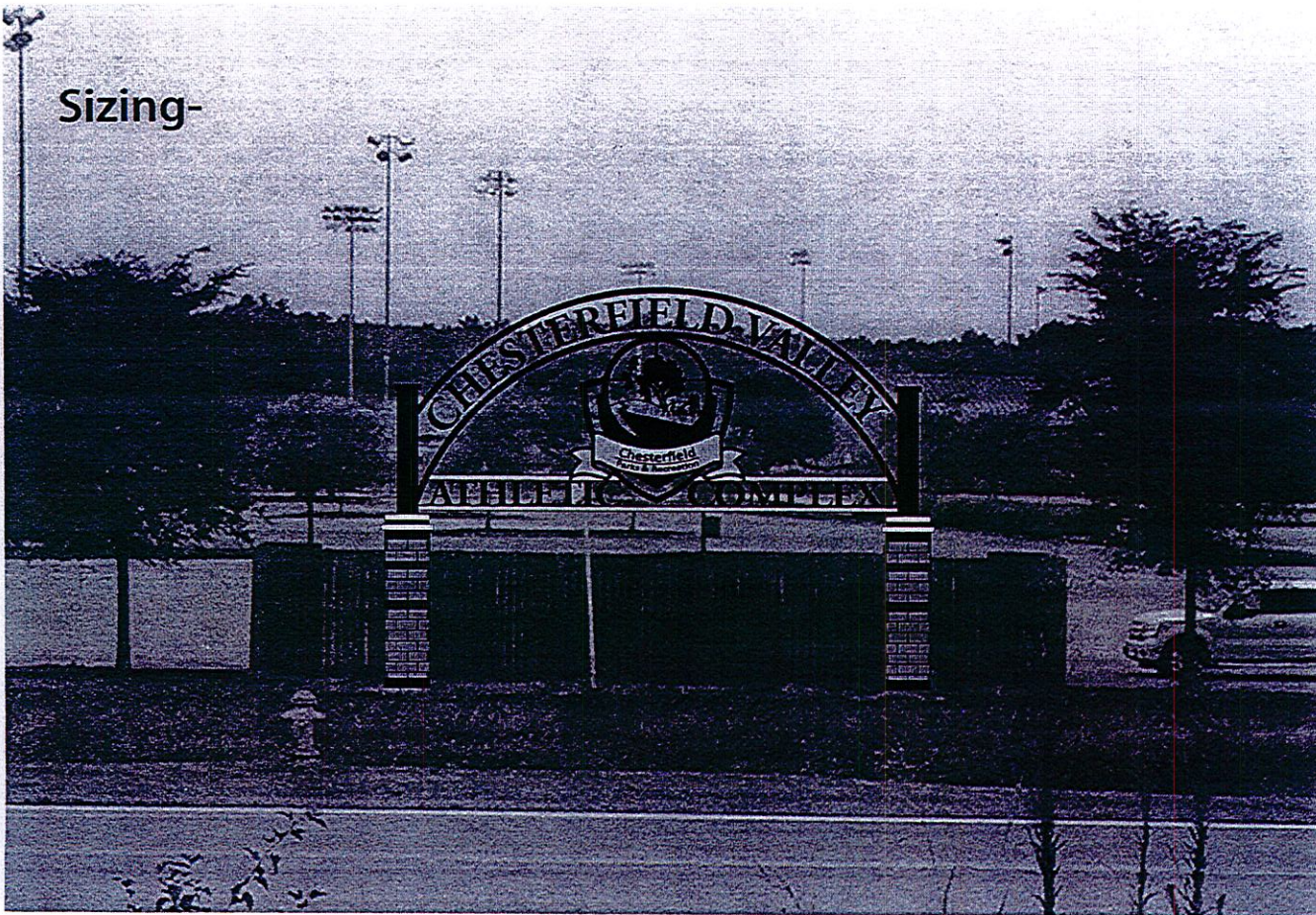
29 in

360 in

2



Sizing-



**LANDMARK**  
*Sign*  
COMPANY

755 Spirit of St. Louis Blvd.  
Chesterfield, MO 63005  
636-536-0400  
info@landmarksignusa.com  
www.landmarksignusa.com

**NOTES-**

**New Archway Ideas-**  
**Size- 264"x360"**  
**Custom Stone Pillars**  
**Custom Welded Archway**  
**Dimensional Logo and Lettering**  
**Custom Masonry**

- APPROVED AS IS  
 APPROVED AS NOTED  
 REVISE & RESUBMIT

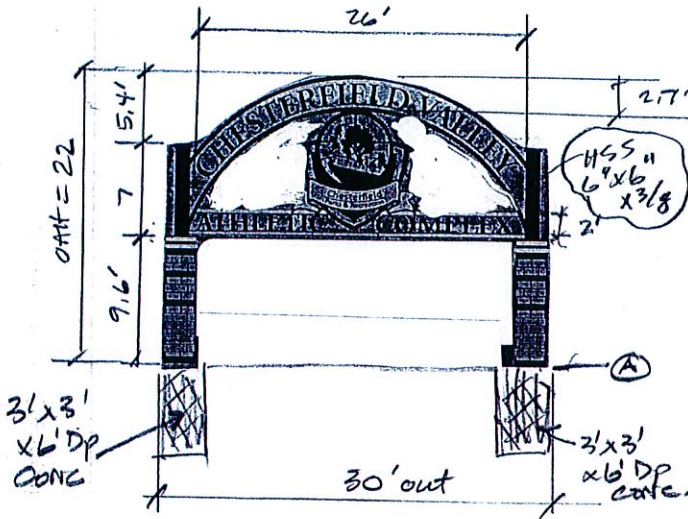
**Initials** \_\_\_\_\_

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Pylon 2-POLE  
22' DIA

LANDMARK SIGN  
CVAC ARCHWAY



$$q_z = 0.00256(0.94)(1)(1)(115^2)(1) = 318$$

$$F = (318)(1.85)(12) = 32.5$$

$$26 \times 2.7 @ 50\% \times 32.5 = 1140 \times 20 = 22815$$

$$7 \times 7 \times 32.5 = 1592 \times 14 = 22295$$

$$26 \times 2 @ 50\% \times 32.5 = 845 \times 10.6 = 8957$$

$$3577142 \quad 54,067 \text{ ft-lbs}$$

$$S_R = \frac{54,067 \times 12}{21,600 \times 1.33 \times 2} = 11.3 \text{ mi}^3$$

$$S_p \text{ HSS } 6' \times 6' \times \frac{3}{8} = 13.90 \text{ mi}^3$$

$$S_p > S_R \quad \text{OK}$$

WIND @ 32.5 PSF 115mph cl. II structure  
SNOW @ 20 PSF  
SOILS AT 2000 PSF (ASSUMED) 15D  
LATERAL SOIL LOADING AT FOOTING/FOUNDATION (2) 3' x 3' x 6' deep

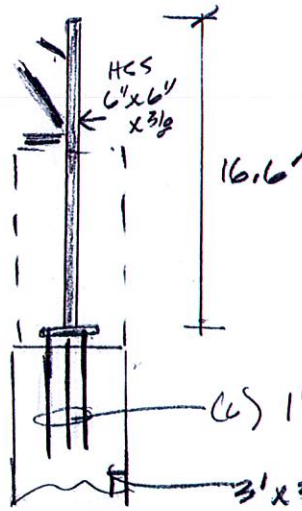
POUR CONCRETE AGAINST UNDISTURBED SOILS, NOT BACK ALL DESIGN, DETAILING, FABRICATION, AND CONSTRUCT SHALL CONFORM TO THE FOLLOWING CODES AND SPECIFICATIONS  
- IBC 2009 EXP "C" (1-SEC GUST)  
- CURRENT INTL. BLDG CODE (IBC)  
- AMERICAN SOCIETY OF TESTING MATLS (ASTM)  
- BLDG CODE REQMT - REINF CONC (ACI 318-83)  
- CODE FOR WELDING IN BUILDING CONSTRUCTION - AMERICAN WELDING SOCIETY  
- CURRENT SPECS - AMERICAN INST OF STEEL CON (AISC) - DESIGN, FAB, & ERECTION  
CONCRETE 3000 P.S.I @ 28 DAYS COMPRESSIVE STRENGTH  
REINF STL - ASTM A-615, GR 60, (IF REQD), WELDED WIRE FABRIC (WWF) - ASTM A195  
- ALL REINF SHALL BE FREE FROM MUD, OIL, RUST COATINGS THAT WOULD REDUCE OR DESTROY BOND  
- ALL REINF BARS SHALL LAP 30 DIAMETERS OR 12" MINIMUM, EXCEPT AS NOTED  
- MIN CONC COVER ON TIES, STIRRUPS AND MAIN BARS SHALL BE 1 INCH FOR SLAB, WALL AND SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH GROUND FOR UNFORMED SURFACES DEPOSITED ON GROUND EXCEPT AS NOTED.

STRUCTURAL STEEL AND PLATES - A-36  
STRUCTURAL TUBING - ASTM A-500, GR B, Fy=46 KSI  
STRUCT PIPE - ASTM A-53, GR B, Fy=36 KSI  
ANCHOR BOLTS ASTM A-307, EXCEPT AS NOTED.  
HI STRENGTH BOLTS - CONNECTIONS - ASTM A-325, U.N.O.  
WELDING ELECTRODES - AWS D1.1-85, E70xx  
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE ERECTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.  
NO CABINET ENGINEERING PROVIDED. IF CABINET ENGINEERING REQUIRED, CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION.  
6" OF CONCRETE OR GRAVEL PLACED IN BOTTOM OF FOUNDATION PRIOR TO MAIN POUR.  
ISOLATE ALUMINUM FROM STEEL.  
ALL BOLT HOLES TO BE DRILLED OR PUNCHED.  
ALL PIPE SIZES SHOWN ARE MINIMUM SIZES. PIPE WITH A LARGER DIAMETER, GREATER YIELD STRENGTH AND/OR GREATER SECTION MOD MAY BE SUBSTITUTED. ACTUAL LENGTH MAY SLIGHTLY VARY DEPENDING ON SIGN CABINET CONDITIONS.  
ALL WORK PERFORMED ON SITE SHALL BE DONE ACCORDING TO APPLICABLE OSHA REGULATIONS.  
WATER SHOULD NOT BE ALLOWED TO POND IN THE EXCAVATION PRIOR TO CONCRETE PLACEMENT ABOVE CONCRETE AFTER THE FORM IS COMPLETED.  
EXERCISE CARE DURING EXCAVATION OF THE FOUNDATION TO MINIMIZE DISTURBANCE TO THE SURROUNDING SOILS.

CALCULATIONS SHOWN ON THESE SHEETS ARE ONLY FOR THE BASE POLE(S) AND CONCRETE BASE FOUNDATION  
SR = SECTION MODULUS REQUIRED  
SP = SECTION MODULUS PROVIDED



Know what's below.  
Call before you dig.



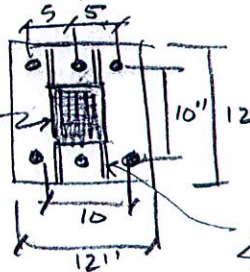
$$F = 3577 \div 2 = 1788 \text{ lbs}$$

$$M = 54,067 \div 2 = 27033 \text{ ft-lb}$$

(6) 1" φ x 36" long Allthread  
20K rated  
3' x 3' x 6' deep conc

$$\text{Bolts } F_n = \frac{27033}{0.83} = 32570 \div 3 = 10857 \text{ lbs}$$

1" φ Allthread  
A307  
(20K rated)  
has wind rating  
of 12,110 lbs  
use (6) 1" φ bolts  
x 36" long



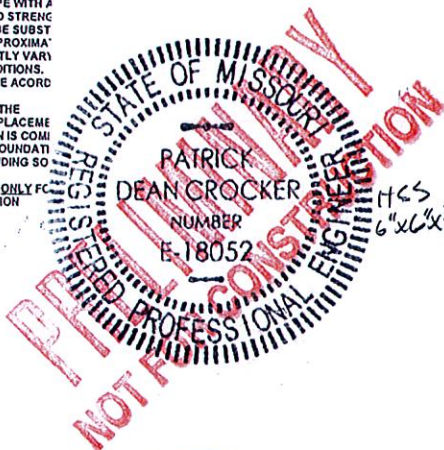
$$\frac{10}{12} = 0.83$$

gusset 2' x 2' x 1/2", @ 4

plate

$$t = 2 \sqrt{\frac{32570 \times 3}{12 \times 75 \times 36,000}} = 1.15$$

use 1 1/2" thick plates



CAE 2008010470

CROCKER CONSULTING ENGINEERS, INC.

3211 EAST SHADY GLEN STREET

SPRINGFIELD, MO 65804

(417) 883-4056

(417) 883-4057 (Fax)



EDDN / FOOTING

$F = 1788$

$M = 27033$

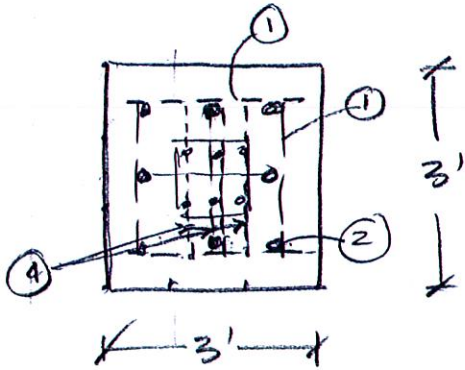
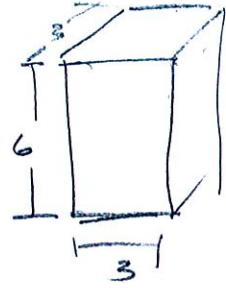
$h = 15.1$

$b = \sqrt{3^2 + 3^2} = 4.24$

$S_L = (150)(2)\left(\frac{4}{3}\right)\left(\frac{4}{3}\right) = 800$

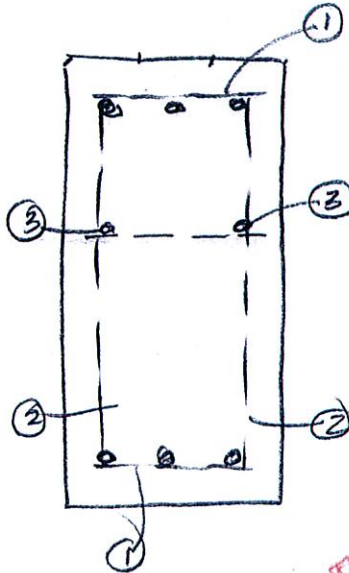
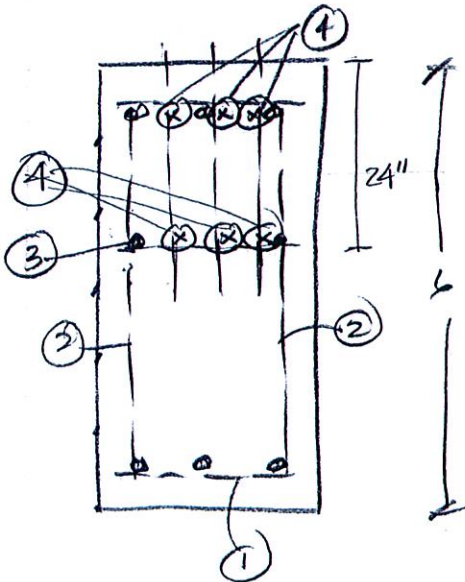
$d = \frac{(1.17)(1788)}{(4.24)(800)} \left[ 1 + \sqrt{1 + \frac{1186(800)(4.24)(15.1)}{1788}} \right]$

$d = 5.2'$  use 6'-0" deep.



Rebar

- ① Horiz #6's, 12" o.c. B/W top plate
- ② Vert #4's, 12" o.c., 4 sides
- ③ Horiz #4 @ 24" depth (btm of bolts)
- ④ Horiz #4's (3 at top of bolts, 3 at btm of bolts) tie to ③ and tie to bolts.



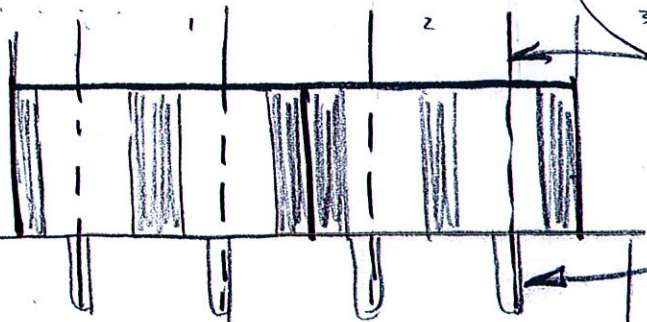
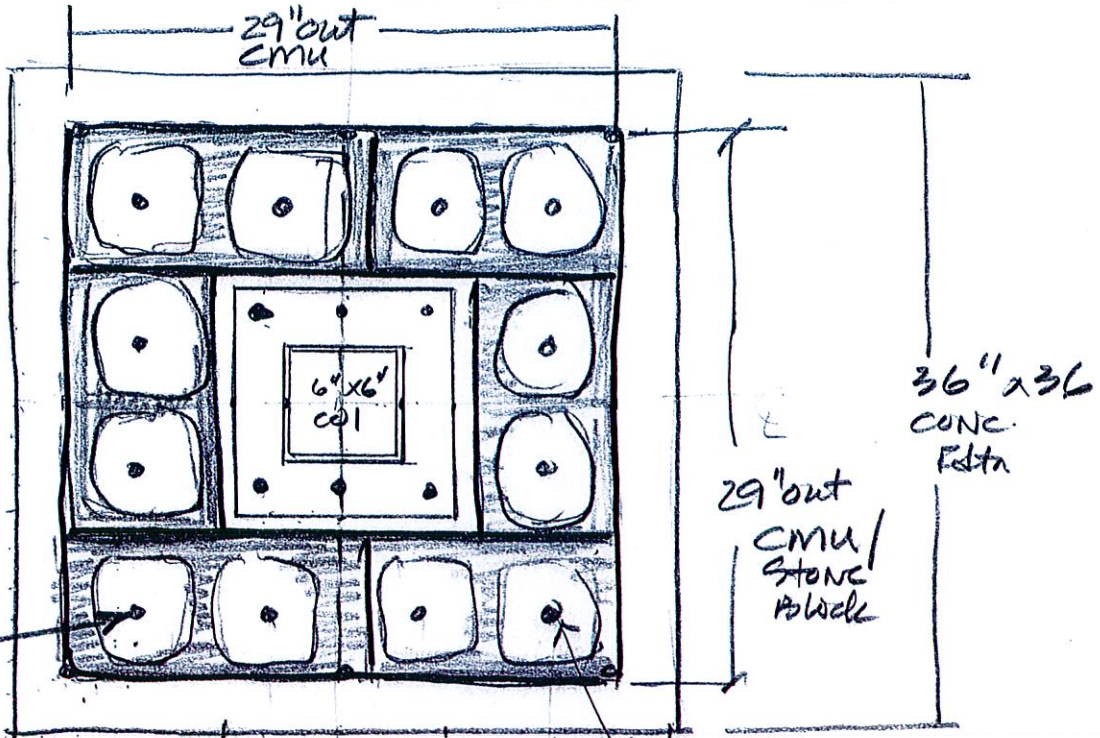
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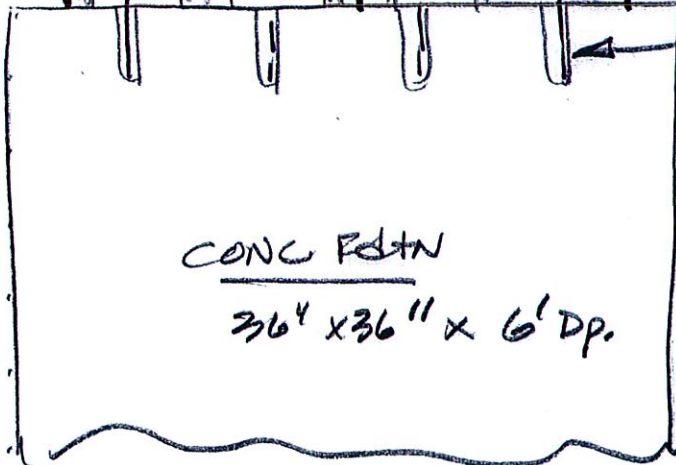
PYLON Z-POLE  
22' DIA

LANDMARK SIGN  
CVAC ARCHWAY

5



Vert #4's Drill 6" into conc. Fdn, epoxy fill 6" void then insert rebar



CMU MASONRY SUPPORT

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